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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/611,308	07/06/2000	Motoyasu Taguchi	Q59988	4941

7590 12/23/2005

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2100 Pennsylvania Avenue N W
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EXAMINER

PIZARRO, RICARDO M

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/611,308

Applicant(s)

TAGUCHI, MOTOYASU

Examiner

Ricardo Pizarro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-18 is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-14 and 19-23 is/are rejected.
- 7) ☒ Claim(s) 5-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 , 3-4, 19 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 4,007,330 (Winters) in view of JP 10-269328 (Osuge).

Regarding claims 1 and 23 Winters discloses a Method and apparatus for demodulation comprising a radio apparatus comprising a plurality of delay circuits (Delay circuits 23, 24 and 25 in Fig. 1) for generating delay profiles by calculating correlations between a reception signal and data at known timings (as the demodulated samples moved through the delay circuits 23, 24 and 25 comparisons are made of each of the samples with the replica bits such the each sample is compared at comparators 22-24 with each of the N replica bits, col 6 lines 39-43), timing circuits which are prepared for said delay profile circuits (Timing circuits provided by the clock pulse source 15 in Fig. 1 to each of the 3 units within device 22 in Fig. 1) comprising comparing the largest correlation value of a delay profile with a predetermined threshold (the largest

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correlation sum is fed from the peak selector circuit 35 in Fig. 1 to a threshold detector circuit 36. which allows an output to occur only when the largest sum exceeds a predetermined level, col 7 lines 33-36).

Regarding claims 19 and 22, Winters discloses a Method and apparatus for demodulation comprising a radio apparatus comprising a plurality of delay circuits (Delay circuits 23, 24 and 25 in Fig. 1) for generating delay profiles by calculating correlations (as the demodulated samples moved through the delay circuits 23, 24 and 25 comparisons are made of each of the samples with the replica bits such the each sample is compared at comparator 22-24 with each of the N replica bits, col 6 lines 39-43) comprising comparing the largest correlation value of a delay profile with a predetermined threshold (the largest correlation sum is fed from the peak selector circuit 35 in Fig. 1 to a threshold detector circuit 36. which allows an output to occur only when the largest sum exceeds a predetermined level, col 7 lines 33-36).

Winters does not specifically disclose stopping a delay profile in accordance with a correlation value of the delay profile, as in claims 1, 3-4, 19 and 22-23.

However Osuge discloses a CDMA receiver path detection method wherein Delay profile circuits are stopped by cutting off power supply to them .(since the judgment data threshold is computed by processing , at this time power to delay profiles can be cut off to save power (See Paragraphs 0110 and 0112 in Page 11).

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Therefore it would have been obvious to one of ordinary skill in the art to modify by providing the stopping of the delay profile circuits as in Osuge to Winters in order to save power in the system.

The motivation to do so is to obtain a system that reduces current consumption.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 4,007,330 (Winters) in view of JP 10-269328 (Osuge). and in further view of US patent No 6,330,271 (Klang)

Winters and Osuge do not specifically disclose a plurality of delay profile circuits to simultaneously receive signals from a plurality of CDMA transmitters.

However Klang discloses a CDMA receiver that receives signals from a plurality of transmitters (separate Rake receivers 24 in Fig. 2 receive signals from a plurality of transmitters).

Therefore it would have been obvious to one of ordinary skill in the art to modify Winters and Osuge by providing the means to receive signals from a plurality of transmitters as in Klang to allow for simultaneous reception from multiple users.

5. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 4,007,330 (Winters) in view of JP 10-269328 Osuge.

Winters and Osuge do not specifically disclose wherein a predetermined period of time which operation of the at least one delay profile circuits is stopped is a

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natural number multiple of a length of a radio frame of a reception signal, as in claims 9 and 10.

However, it would have been obvious to one of ordinary skill in the art that when the circuits would stop it would have to be in a defined position in the frame and when the circuits would restart it would have to do that in the same position within the next frame or next plurality of frames therefore defining a multiple N of the length of a radio frame.

6. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 4,007,330 (Winters) in view of JP 10-269328 Osuge.

Winters and Osuge do not specifically disclose operation of at least one delay profile circuit and said timing circuit is stopped by stopping supplying an operation clock to at least the delay profile circuit.

However it would have been obvious that by stopping an operation clock to the at least one profile delay circuit would deactivate the mobile unit.

The motivation to do so is to save power in the system by reducing the number of elements in operation in the system.

7. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 4,007,330 (Winters) in view of JP 10-269328 Osuge.

Winters does not specifically disclose operation of the at least one delay profiles circuits being stopped by stopping supplying power to the circuit

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However Osuge disclosed the operation of delay circuits being stopped by cutting off power to the circuits(See Paragraphs 0110 and 0112 in Page 11).

. Therefore it would have been obvious to one of ordinary skill in the art to modify by providing the stopping means as in Osuge to Winters in order to save power in the system.

The motivation to do so is to obtain a system that reduces current consumption.

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 4,007,330 (Winters) in view of JP 10-269328 Osuge)

Winters and Osuge do not specifically disclose that a predetermined period of time elapses while operation of said at lasts one delay profile circuit is stopped and resuming the operation when a lapse of the predetermined period of time is detected.

However it would have been to one of ordinary skill in the art that after a predetermined period of time has elapsed in the system after the circuits have stopped, the operation would resume in order for the system to complete its task.

The motivation to do so is reduce power consumption and simplify hardware constitution.

Allowable Subject Matter

7. Claims 15-18 are allowed.

Claims 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

Conclusion

8. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300

(for formal communications intended for entry, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to 220 South 20th Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, Va 22202 (Customer Window).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ricardo Pizarro** whose telephone number is (571) 272-3077. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:30 PM. .

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Hassan Kizou** can be reached on (571) 272-3088

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 14, 2005
Ricardo Pizarro



Allowable Subject Matter

7. Claims 15-18 are allowed.

Claims 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

Response to Arguments

8. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. **Any response to this action should be mailed to:**

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